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Implementation of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa

High-level meeting on addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication

Note by the Secretary-General

The Secretary-General has the honour to transmit to the General Assembly the report submitted by the secretariat of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, in preparation for the high-level meeting on desertification, land degradation and drought in the context of sustainable development and poverty eradication, to be held at Headquarters on 20 September 2011, in pursuance of General Assembly resolution 65/160.

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Report of the secretariat of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa

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I. Background

1. In its resolution 65/160, the General Assembly decided to convene a one-day high-level meeting on the theme "Addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication", prior to the general debate of its sixty-sixth session. In paragraph 11 (e) of the resolution, the Assembly requested the Secretary-General to prepare a background paper for the high-level meeting. The present paper has been prepared in response to that request.

2. The paper views desertification, land degradation and drought in their global context. This stems from the cross-cutting dimensions of the issues and the strong linkages between desertification, land degradation and drought and challenges such as climate change, biodiversity, poverty eradication and the achievement of the Millennium Development Goals, food security, peace and security, forced migration, natural disaster reduction, and water management, among others. It argues the case for addressing desertification, land degradation and drought as crucial to finding sustainable solutions to numerous global crises and hence the urgent need to ensure higher priority for those issues on the international agenda.

II. Desertification, land degradation and drought in perspective

Desertification, land degradation and drought are global issues: humankind's future relies on successful management of its increasing impact on land and soil

A. Land degradation and drought have a global dimension and affect all ecosystems

3. Land degradation is a long-term loss of ecosystem function and services that are vital for human existence, caused by disturbances from which the system cannot recover unaided. The issue is traditionally viewed as most pressing in the world's arid, semi-arid and dry sub-humid areas — commonly known as the "drylands" — where land degradation is called desertification. An analysis of 23 years of remote sensing data reveals a declining trend in land productivity across some 24 per cent of the global land surface, at a rate of almost 1 per cent per year. More than 50 per cent of the land used for agriculture is moderately to severely degraded. Arable land loss has been estimated at 30 to 35 times the historical rate. Land degradation outside drylands accounts for 78 per cent of its total and is undoubtedly a global issue, affecting developed countries as well as developing ones.

4. Desertification and land degradation occur in numerous ways, such as soil erosion, the deterioration of soil biology and the loss of natural vegetation. Forces driving unsustainable land use include agricultural policies, land governance, and market regulation. Results include declines in crop production, fuelwood harvests and water resources.

5. Ecological and economic systems are also disrupted by drought, the naturally occurring phenomenon that exists when precipitation is significantly below normal recorded levels. Drought, like land degradation, occurs in most parts of the world, including humid regions, because drought is a dry spell relative to the average conditions locally. Drought is temporary, in contrast to the permanent aridity in

drylands, but drylands are also still prone to drought because the rainfall they receive critically depends on a few rainfall events.

B. Drylands will significantly expand in the decades to come

6. Ecosystems affected by increased aridity are likely to expand under global warming scenarios. Since the mid-twentieth century, global aridity and drought areas have increased substantially, a trend that is particularly marked after the late 1970s, when rapid warming of the atmosphere has contributed significantly to global drying. Still greater aridity and persistent severe droughts are expected in the next 20 to 50 years over most of Africa, Southern Europe and the Middle East, Australia, South-East Asia and most of North and South America. The implications for very large numbers of people are clear. Rapid response and adaptation strategies, incorporating effective drought management and disaster risk reduction plans, should be a high priority.

7. Drought conditions can profoundly affect ecosystems, agriculture, water resources, power supplies and basic human welfare. These effects can be exacerbated by desertification and land degradation. For example, poor management of cropland may lead to greater erosion and dust storms, amplifying the effects of drought on food production.

C. The issue of keeping productive land has become a global issue

8. Productive land is becoming scarce. Population growth, climate change, land degradation and growing urban areas increase the pressure on productive land resources and water. At the same time, competition for productive land increases due to growing demand for food, fodder and agricultural raw material for industrial and energy use. The extreme increase of land sales and long-term land leases in developing countries can be taken as one indicator that land has become a global issue.

9. Another compelling reason to view desertification, land degradation and drought in its global context stems from the links between land degradation and two other major issues of global environmental change: climate change and biodiversity loss. Land is intimately related to climate change adaptation and mitigation, and its sustainable management provides a tool for both. Maintaining and enhancing the condition of ecosystems based on land contributes to biodiversity conservation, and sustainably managing land — including rehabilitation and reclamation — provides a viable alternative to deforestation and afforestation.

10. Desertification, land degradation and drought, when compounded by poverty and inequality, can feed political insecurity and conflict. The fierce competition over scarce resources for life (water and productive land) in the context of chronic poverty transform affected areas into conflict-prone regions. It is probably not coincidental that drylands are some of the most conflict-prone regions of the world. In 2007, 80 per cent of major armed conflicts worldwide occurred in drylands.

11. Drought and degradation drive people off their land, creating economic migrants and environmental refugees. Temporary migration has long been an important element in rural livelihoods during times of stress, but increasing numbers

migrate internationally and for longer periods. These migrants have the potential to adversely affect political and economic stability locally, regionally and internationally.

D. Sustainable land management and the United Nations Convention to Combat Desertification

12. The reverse side of these desertification, land degradation and drought synergies means that work done to achieve sustainable land management also contributes to addressing other global challenges. The devastating impacts of desertification and drought came to the world's attention as arguably the first global environmental issue in the early 1970s when the effects in Sahelian Africa prompted calls for international action. On the policy front, this stimulated a chain of initiatives that eventually culminated in the United Nations Convention to Combat Desertification, one of the three Rio Conventions agreed in 1992. The Convention to Combat Desertification has now been ratified by 194 parties.

13. Much has changed in the nearly 20 years since the United Nations Conference on Environment and Development. The Conference itself was a landmark event in society's shift in appreciation of the natural environment as a whole: from viewing nature primarily as resource, to understanding nature as life-sustaining global ecosystem that also harbours resources. That view is now firmly entrenched. With this new understanding has come the widespread acceptance that human-induced environmental changes, and their consequences for human and ecosystems well-being, are now fundamental development issues.

E. For human needs to be met, land resource and capacity must be assessed and monitored at all levels

14. As the only international and legally binding instrument focussing on sustainable land management, the Convention to Combat Desertification requires all parties to engage through political, practical and financial investment in the maintenance of productive land by improving affected ecosystems and living conditions.

15. Desertification/land degradation is now recognized as both an environmental and a developmental problem, and of global proportions. From a scientific viewpoint, the exclusive focus on land degradation solely in drylands has de facto proven to be no longer tenable. Segregating dryland degradation from non-dryland degradation has also proven to be counterproductive at the national level, on the one hand, because most affected countries have both dryland and non-dryland areas and, on the other hand, because of its cross-border dimensions.

16. A new understanding of the scope of the Convention has emerged over the past 10 years, which combines the priority given to drylands with recognition that the tools and policies promoted by the Convention are relevant to sustainable land management globally. Although the Convention distinguishes between affected and non-affected parties, the active engagement of all parties is prudent because a country not affected immediately by desertification will certainly still feel its impact

via related issues, including climate change, food insecurity and environmentally induced migration.

17. The United Nations Conference on Sustainable Development (Rio+20), to be held in Rio de Janeiro, Brazil, in June 2012, will focus on green economies in the context of sustainable development and poverty eradication and the future institutional framework for sustainable development. The time is right to argue the case for efficient management of natural resources as a central element of a green economy, and the battle for poverty eradication and global sustainability.

18. A 10-year strategic plan and framework to enhance the implementation of the Convention (2008-2018) was adopted at the eighth session of the Conference of the Parties, in 2007 (decision 3/COP.8). It has four strategic objectives, three of which now have operational frameworks. The Strategy is an essential document for the implementation of the Convention. It provides a framework that captures the long-term vision of the parties, reflecting consensus on the success factors (finance, policy, capacity development, advocacy and a sound scientific basis) for achieving the Convention's targets. It would be useful to reflect on the progress achieved and obstacles that impede further implementation.

19. After the eighth session of the Conference of the Parties, the Convention entered the realms of measurability in terms of impact and performance indicators with a move towards a results-based management approach. At the ninth session, in 2009, the parties decided to use a standardized set of performance indicators for reports, and agreed on 11 indicators to assess desertification impact. The two mandatory indicators — changes in land cover status and the proportion of the population living above the poverty line — and nine optional impact indicators will first be used for reporting in 2012.

III. The poverty-desertification, land degradation and drought nexus

Sustainable land management has a positive impact on economic growth and the eradication of poverty worldwide

20. The Convention to Combat Desertification is the global focal point and normative reference for desertification, land degradation and drought issues. Its full operationalization at all levels and by all actors and stakeholders is, therefore, a wise and highly desirable strategy. Land degradation affects 1.5 billion people globally whose livelihoods depend directly on exploiting degraded areas and is closely associated with poverty, as 42 per cent of the very poor live in degraded areas compared with 15 per cent of the non-poor.

A. Land degradation is a cause and a consequence of poverty worldwide

21. The challenges of desertification, land degradation and drought are of a global nature because land degradation and drought occur in virtually all ecosystems. Hence, these issues are faced by all countries, although their significance is particularly acute for the world's poor. Many people living in rural areas depend directly upon the natural resource base for their livelihoods, so any deterioration in

those resources, through desertification, land degradation and/or drought, has direct impacts on human welfare.

22. The links between land degradation and poverty are mutually reinforcing. This "downward spiral" hypothesis has it that some poor households are compelled to deplete resources to survive, and this degradation impoverishes them because degraded land progressively reduces agricultural productivity and income. People in poverty may well recognize their actions as harmful to their own long-term interests, yet their abject poverty leaves them with no alternative.

B. Droughts have a disproportionate impact on the poor

23. Several studies have found that during a drought the poorest rural households experience crop-income losses that are proportionally higher than the losses of the wealthiest households. Drought losses are typically offset by selling remaining assets, but prices are often depressed after a natural disaster because many people sell possessions at the same time, undermining the efficacy of the coping strategy. This situation applies particularly to livestock or other possessions in remote rural areas with limited access to markets.

24. Reductions in income or consumption caused by drought frequently have negative knock-on effects on other aspects of human welfare and development. In countries where the socio-economic status of women is low, drought disasters can intensify existing patterns of discrimination that make women more vulnerable. Drought may result in a decline in body mass among rural women, with no impact on men's health. Children in drought-affected villages can experience long-lasting effects on health, such as stunted growth and impaired mental development.

25. Most of the effects of drought on poor rural households occur as a result of its adverse impacts on the quantity and quality of food production. Soil degradation has similar indirect effects on human nutrition and health and acts both separately from and in tandem with drought. It is necessary when considering policy options to strengthen the food security policies that promote food production by indigenous people, small farmers and rural communities, including by using indigenous seeds and traditional knowledge.

C. The "forgotten billion": poverty prevalence is higher in drylands

26. Many of the world's poorest and most disadvantaged people face these and other challenges on a daily basis. Most poor people, in particular the rural poor, are located in areas that are frequently described using terms such as "marginal" and "fragile". A common characteristic of such "difficult" places is aridity, and the association between drylands and poverty has been identified at numerous geographical scales, from the global and regional to the national and subnational. Worldwide, about half of all dryland inhabitants are poor: approximately one billion people whose low level of human welfare reflects a fundamental neglect in the development process, including lack of access to basic services such as access to clean drinking water and sanitation.

27. The large majority of these dryland inhabitants depend directly upon a highly variable natural resource base for their livelihoods. Drylands embrace a range of

climatic and environmental conditions all typified by limited water resources. Rainfall totals are low on average and often vary greatly from year to year and over short distances. The result is a group of physical environments characterized by dynamism and low levels of ecosystem services.

28. Poverty in rural drylands and in degraded lands in general stems from an interconnected web of drivers. Other reasons commonly cited to explain concentrations of rural poverty include physical isolation, political marginalization and an associated lack of infrastructure, which includes, but is not limited to, access to markets, education and health facilities.

29. There is certainly nothing inevitable about the drylands' generally low status with regard to human well-being. Despite the challenges of living in these environments, people have successfully inhabited drylands for thousands of years, and examples of great productivity and prosperity can also be cited from these regions. Drylands provide much of the world's food in the form of grain and livestock. Major global areas of cereal production are located in semi-arid areas, including the North American Great Plains, the Pampas in Argentina and the wheat belts of the Russian Federation, Ukraine and Kazakhstan. Dryland rangelands support about 50 per cent of the world's livestock. Drylands are also the setting for major world cities such as Beijing, Cairo, Delhi, Los Angeles, California, and Mexico City.

30. These simple facts contradict the myth that all drylands are empty, barren places with little economic value. This is one of several popular misconceptions about drylands that have impeded progress towards sustainable development in these areas, part and parcel of their general neglect by political and business leaders. The Millennium Development Goals experience has taught us that motivating countries to address poverty issues in many environments can be achieved by employing targets as effective instruments.

31. Many regions of poverty are characterized by high levels of risk, which the poor are often badly placed to cope with. This compounds the probability of hardship and contributes to the difficulties of escaping from poverty. Natural hazards such as extremes of climate, in particular drought, are typical drivers of these high levels of risk. A loss of food and income, due to harvest failure and/or livestock mortality, is a common outcome at the household level.

D. Desertification, land degradation and drought and risk management

32. Natural disaster risk is also fundamentally associated with poverty at larger scales. Countries with small and vulnerable economies, such as landlocked developing countries, least developed countries and small island developing States, suffer higher relative levels of economic loss with respect to the size of gross domestic product (GDP), and have a particularly low resilience to losses from natural disasters such as drought and flood. The case of Haiti illustrates the vulnerability and poor resilience of least developed countries vis-à-vis various categories of shocks, particularly those stemming from climate change. After the devastating earthquake of February 2010, the successful reconstruction of that country must of necessity address its serious land degradation problem, for it is

productive lands that hold the key to Haiti's future as regards sustainable development.

33. Rural communities have themselves developed numerous strategies for managing the inherent risks stemming from variability in natural environments, but the resilience of these communities to perturbations can be enhanced often with very simple development assistance. Drought presents a critical challenge in the semi-arid north-east of Brazil, where provision of a safe and reliable supply of water is a vital way of increasing the use efficiency of sporadic resources. Since 2003, the Programme of a Million Cisterns has worked towards supplying "drought secure" drinking water for a million rural households — about 5 million people — in the area, using a decentralized, low-tech method of managing rainwater. With a community-based participatory approach, families are assisted in building their own cisterns to collect rainwater. By January 2011, over 320,000 cisterns had been constructed. The initiative has generated employment and income, helped to lighten the domestic workload for many women and enabled more children to attend school. Diseases related to contaminated water have also decreased.

E. Desertification, land degradation and drought and gender: women bear the burdens of land degradation and provide solutions

34. Labour divisions in rural areas are often gendered. Women undertake many of the household tasks, including the collection of wood and water and the provision of food. In degraded environments, these tasks become more difficult, adding to the burden on women and girls. Investing in opportunities for women and girls has strong multiplier effects across all the Millennium Development Goals.

35. An example centred on access to modern energy services can be cited from rural Mali, where biomass provides virtually all energy supplies, creating corridors of deforestation along access roads and exacerbating the problems of soil erosion and desertification. Since the 1990s, some villages have been supplied with a diesel engine mounted on a platform to provide off-grid energy for many uses, including the processing of agricultural produce, pumping water, charging batteries and powering lights. Women's groups operate and maintain the equipment on these "multifunctional platforms" and sell energy services to local customers.

36. The programme has eased the burden of fuel wood collection, bringing considerable time savings for women. The resulting multiple benefits include increased cash income, higher food consumption, better health opportunities for women and better educational opportunities for girls, as well as reduced pressure on local fuel wood sources. The approach could be modified before scaling up, utilizing the abundant solar power that typifies drylands, to increase access to energy for the poor and alleviate pressures on biomass.

37. Full and equal gender participation is a requirement under the United Nations Convention to Combat Desertification. The multifunctional platforms in rural Mali illustrate how rapid and profound benefits can be brought about with just small investments targeting rural women.

F. Desertification, land degradation and drought and economic growth

38. The fundamental essence of any policies designed to tackle rural poverty must be to concentrate on improving household activities that are already available, which in most places means some form of agriculture, while also expanding the range of potential activities of family members. Increasing options to generate income based on the effective participation of all sectors of society, can make these regions more attractive for public and private investment, leading in time to better services and infrastructure in a virtuous circle of development.

39. The ability to access and take advantage of income-generating activities depends critically on access to assets, such as land, education and infrastructure. If natural assets are losing value thanks to degradation and drought, this will undermine any progress made on access to other forms of asset. By controlling and reversing desertification/land degradation and mitigating the effects of drought, the Convention to Combat Desertification therefore makes a direct positive contribution to reducing the poverty that affects a billion people in drylands.

IV. Desertification, land degradation and drought and sustainable development

Maintaining ecosystem services requires good science-policy linkages and an emphasis on synergies

40. Land degradation corrodes the three pillars of sustainable development worldwide. Beyond food scarcity, desertification, land degradation and drought can create unemployment, economic deterioration, social tension, involuntary migration and conflicts. Spiking prices for staple foods such as rice and maize in 2008 coincided with worldwide food riots and related civil disturbances.

A. Desertification, land degradation and drought is a driver of food insecurity

41. Worldwide, some 925 million people are going hungry, 80 per cent of them small farmers and the landless poor in rural areas. Providing food for an additional 3 billion people by 2050 requires a 70 per cent increase in global food production according to the Food and Agriculture Organization of the United Nations (FAO). The challenge will be particularly critical in the most vulnerable parts of the developing world, but the current trend of rising food prices is starting to hit people in industrialized countries and cities as well.

42. World food prices are expected to continue to be higher in the next decade. Land degradation is contributing to higher and more volatile food prices, by reducing agricultural production and causing production to be more vulnerable to weather extremes and changing climate conditions. According to the International Food Policy Research Institute, land degradation over the next 25 years may reduce global food production from what it otherwise would be by as much as 12 per cent, resulting in world food prices as much as 30 per cent higher for some commodities.

43. Improving the resilience of agricultural production systems in the face of drought and other extreme climate events, as well as the slow-onset impacts of climate change, is therefore a challenge of immense importance. Protecting or rehabilitating degraded lands that contribute directly, or indirectly via ecosystem services, to agricultural productivity is another important strategy. Meeting global food targets will require improved, sustainable management of relevant resources, including land, nutrients and water.

B. Desertification, land degradation and drought has economic, social and environmental costs

44. Land has a value as natural capital and there are costs associated with unsustainable land use although, in part, the costs of degradation depend on the priorities of individual land users.

45. Desertification, land degradation and drought brings significant social and environmental costs. At the global scale, losses in net primary production can be used as an indicator of land degradation. Measured as net primary production loss, land degradation was also responsible for a loss of fixed carbon between 1981 and 2003 of some 900 million tons, costed at $48 billion. Land degradation and poverty often coincide: this was shown in the Land Degradation Assessment in Drylands study, in which geographical patterns of net primary production loss were compared to those for infant mortality and the percentage of children under five who are underweight. Only in drylands, land degradation is estimated to cost developing countries about 4-8 per cent of their GDP every year.

C. Desertification, land degradation and drought is a major impediment to progress in the least developed countries

46. The economics of most least developed countries rely heavily on climate-sensitive agriculture, which employs an average of 70 per cent of the population. Land, their main capital, if not their only capital, is continuously depleted, further entrenching them into poverty.

47. The adverse impacts of climate change are compounding the situation. Least developed countries in South Asia have experienced huge losses as their agricultural productivity has shrunk by 30-40 per cent. Yield from rain-fed agriculture could be reduced by up to 50 per cent by 2020 in some African least developed countries.

48. During the last decade and despite an average of 6 per cent growth in GDP, least developed countries have witnessed an increase in food imports and have become more food insecure. In most least developed countries, 70 per cent of the food-insecure live in rural areas, mostly where land productivity is very low.

49. In countries with land-based economies, addressing desertification, land degradation and drought issues through sound investment in agriculture and rural development is a priority for overcoming poverty and stimulating growth. According to the World Bank, GDP growth in agriculture is up to four times more effective in reducing poverty than GDP generated in other sectors.

D. Understanding the economic dimension and social implications of desertification, land degradation and drought

50. A stocktaking analysis of the economics of desertification, land degradation and drought, funded by the Government of Germany, reveals that existing valuation studies focus mainly on the direct costs of land degradation to agricultural productivity. Most calculations are at the country level and confine themselves to soil erosion effects. Their cost estimates range from less than 1 per cent up to about 10 per cent of agricultural GDP. Off-site costs are significantly higher. In just one example, the annual cost of siltation in reservoirs behind the world's large dams is about $18.5 billion when considering the loss of hydropower, the loss of irrigation-driven productivity and the costs of dam replacement. The latest assessment in Malawi put the annual on-site loss of agricultural productivity due to soil degradation at $54 million (1.6 per cent of GDP) in 2007. The costs of minimizing this impact are put at $10 million a year.

51. Drought is one of the most economically disruptive of all extreme weather events. Annually, the economic cost of drought in the United States of America is put at $6 billion to $8 billion, but it reached $40 billion in the drought of 1988. The 1999-2000 drought in Kenya, one of the worst in the country's history, led to a 1.4 per cent fall in GDP and a 2.2 per cent rise in inflation. During the 1991-95 drought in Australia, production by rural industries fell by 10 per cent, costing the Australian economy US$5 billion. Drought relief from Commonwealth Governments cost a further $590 million.

52. The initiative of the study on the economics of desertification, land degradation and drought[1] is meant to produce an economic valuation of land degradation and a cost-benefit analysis of sustainable land management. Targeted communication on the results will enable decision makers to adequately trigger action against land degradation in order to strengthen rural development and global food security. The basis for this is an independent scientific assessment in the context of a sound and evidence-based economic approach.

E. Addressing desertification, land degradation and drought is one of the best ways of meeting the objectives of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity

53. The issue of land degradation outside forests is hugely important for forest degradation. If land degradation is not addressed seriously, up to 70 per cent of the mitigation we would get from protecting our forests would be lost.

54. The challenges of confronting the numerous costs of desertification, land degradation and drought to society and the environment are compounded by the ecological and economic changes associated with climate change and biodiversity loss. Desertification and land degradation diminish biodiversity both above the ground and within the soil, and this diversity underpins the ecosystem services that

[1] International Food Policy Research Institute, "The economies of desertification, land degradation and drought: towards an integrated global assessment", IFPRI Discussion Paper, May 2011.

benefit society. Land degradation also contributes to global climate change by releasing to the atmosphere carbon stored in vegetation and soils. Feedbacks can exacerbate the links between desertification, land degradation and drought, climate change and biodiversity loss, presenting significant challenges to communities whose livelihoods depend directly on biological resources. Unless suitable changes are made to their use of those resources, these people can be propelled into unsustainable land uses, with land degradation the result. Support to developing countries to address the adverse impacts of climate change and desertification, based on the principle of common but differentiated responsibilities, is also essential.

F. Sustainable land management can have major global benefits for carbon storage and help in protecting biodiversity

55. One of the most pervasive of the numerous complex synergies among the three Rio Conventions occurs through land-use change. Deforestation converts forest into carbon dioxide, reduces the vegetation's carbon-storage capacity and reduces the water-holding capacity of the soil, thus inducing land degradation. Hence, a programme for sustainable management of the land, including forests and agriculture, will limit global warming and conserve some biodiversity. Of course, such sustainable land management also improves the livelihoods of those communities dependent on the land.

56. Sustainable land management is also essential to the success of projects designed to offset greenhouse gas emissions funded by reducing emissions from deforestation and forest degradation in developing countries (REDD) and REDD+. This is because preserving forests will have limited results unless programmes for preventing and reversing land degradation are available as a viable alternative to encroachment on forests.

G. Better policies for sustainable land management need a firmer scientific basis

57. The threats to sustainable development posed by desertification, land degradation and drought have been recognized for a long time. In 1987, the report of the World Commission on Environment and Development, entitled "Our Common Future", pointed out that land use in agriculture and forestry should be based on a scientific assessment of land capacity and monitoring of the annual depletion of topsoil. Agenda 21, the Johannesburg Plan of Implementation of the World Summit on Sustainable Development and the outcomes of the sixteenth and seventeenth sessions of the Commission on Sustainable Development have devoted a great deal of attention to these issues. The fact that the aims of the Convention to Combat Desertification include improving the physical and biological conditions of land and the livelihoods of people affected in itself poses major methodological challenges for integrating the monitoring and assessment of human and environmental parameters.

58. Progress in responding to these threats has been undermined in part by the difficulties of measuring the distribution, extent and severity of the numerous types of degradation. Maps and databases do not convey an accurate picture of the global dimensions and the local dynamics of the problem, nor do they provide insight into the impacts of investments in sustainable land management.

59. Parties to the Convention to Combat Desertification have thus adopted two mandatory impact indicators: land cover status and the proportion of the population living below the poverty line.

60. The FAO Land Degradation in Drylands Assessment project has created a baseline for future global monitoring using a range of indicators collected by processing satellite data and existing databases.

61. Getting the details of these impact indicators right is crucially important because only when the details are agreed can baselines for monitoring and assessment be set. The establishment of baseline conditions will then enable impact targets to be agreed.

62. Progress on these challenges has been hindered by deficiencies in communication between the scientific community and Convention bodies. Strengthening the scientific base of the Convention on desertification, land degradation and drought issues is an important precursor to the setting of impact targets. Institutional protocols and formats, both within the Convention and within the global scientific community, need improvement. Hence, a series of scientific conferences was established to enhance the flow of scientific information into the deliberations and decisions relative to the Convention. Nonetheless, some mechanism for more continuous engagement between the scientific community and the Convention is still required for activities such as monitoring and assessment. Establishing a global authority on the scientific and technical knowledge pertaining to desertification, land degradation and drought is one of the expected outcomes of the 10-year Strategy of the Convention.

V. Policy dimensions of desertification, land degradation and drought

Investing scarce resources through an integrated approach can maximize impacts and benefits

63. Preventing land degradation and achieving land improvement are feasible and have far-reaching impacts. In fact, during the period of time where 24 per cent of the global land area has shown a trend of increasing degradation, improvement has been noted in some 16 per cent of the land area, mainly in dry and range lands. Crucial elements of any effective approach to sustainable land management will of necessity hinge on support — human, financial and technical — from the international community to the national action plans of parties and also to the regional coordination units, which can play a catalytic role in implementation of the five regional annexes to the Convention to Combat Desertification.

A. The ultimate aims of sustainable land management: to enhance the economic and social well-being of affected communities, sustain ecosystem services and strengthen the adaptive capacity to manage climate change

64. The ubiquity of desertification, land degradation and drought and the linkages with other global development challenges means that strategies to deal with its

issues should be cross-cutting and synergistic and can make a substantial contribution to the eradication of poverty and to the achievement of sustainable development. Progress towards these goals can be made by communities, Governments, donors, international bodies and private investors. Investments made by all of these groups should view human society and the operation of nature in an integrated manner. The ultimate aims of this integrated approach to addressing desertification, land degradation and drought should be threefold: enhancing the economic and social well-being of affected communities, enabling them to sustain their ecosystem services, as well as strengthening their adaptive capacity to manage environmental (including climate) change.

B. Funding for sustainable land management should include private sector investments

65. To facilitate implementation of the Convention, existing national, bilateral and multilateral funding sources should be employed, along with additional innovative sources of funding from the private sector and elsewhere. People directly involved in sustainable land management, farmers and pastoralists, are key to its success, but this is also true of a whole range of companies whose activities have a direct bearing on soils, particularly those involved in agriculture, energy, water management, forestry, or involved in activities whose waste and by-products affect soil fertility.

C. Five conditions for successful policies for sustainable land management acceleration

66. Sustainable land management cannot succeed as a stand-alone policy but needs to be embedded in other policies. Eradicating poverty is one of the essential requirements for sustainable development, and addressing desertification, land degradation and drought should play a critical role in achieving sustainability. The experiences of countries striving to achieve the Millennium Development Goals highlight the conditions for success of scaling up and rolling out sustainable land management.

1. Country-led development and effective governance

67. The choice of policies and how well they are implemented determines progress on the Millennium Development Goals and how sustainable land management can assist in this process. Effective implementation also requires representative political structures, accountable institutions and public servants who have adequate incentives and capacities.

68. Mainstreaming desertification, land degradation and drought issues into national and communal development strategies and investment plans, through consultation and participation, is essential. Further prerequisites for sustainable land management are land-use planning and appropriate tenure for land and natural resources as they help to secure investments and to prevent conflicts over productive land.

69. An example of how country-led development and effective governance may be facilitated can be cited from Tajikistan. A recent project on enhancing agricultural governance has contributed to rural poverty alleviation and agricultural growth by strengthening participatory decision-making among farmers and increasing their

voice in national policymaking. Examples from West Africa prove that local conventions on the utilization and protection of natural resources which regulate use and access are important tools for the decentralized management of natural resources, if they are sufficiently institutionalized and economically viable for the population.

70. Enhancing the capacity to monitor desertification, land degradation and drought and the impact of investments in sustainable land management has been neglected in the past, but has proven to be essential to encourage appropriate political decision-making.

2. Inclusive and pro-poor economic growth with a focus on agricultural productivity

71. In most rural areas, improving farming system productivity is essential, particularly by increasing inputs (e.g., credit, better seeds and water management). Identifying comparative advantage is central to stimulating agricultural growth in remote disadvantaged regions, such as many drylands. Where market access is good and soils suitable, small-scale irrigation development may yield the highest returns. Extensive livestock production may have comparative advantage in areas with low crop potential, particularly if remote and sparsely populated (e.g., West Africa and the Altiplano-Puna of the Central Andes). Growing markets for livestock products, particularly in burgeoning cities in developing countries, offer great opportunities to maximize the potential benefits in these areas, given appropriate support for poor livestock producers to better integrate with commercial marketing and processing. Safeguards should also be introduced to protect the poor from further marginalization in the event of competition against outside investors.

72. The private sector is vital to these strategies for stimulating agricultural growth, but needs public investment in transport and communications, property rights, and technology transfers. Three decades of increasingly progressive agricultural land-use rights reform made a major contribution to the dramatic reduction of poverty rates in recent decades in China. Greatly improved cereal yields in India over the last 40 years have been achieved by long-term public investment in improving varieties, followed by private sector involvement, resulting in a significant advance in rural food security.

3. Public investment in education, health and basic services

73. Many rural areas suffer from poor service delivery in health, education, water, sanitation and other basic infrastructure, often as a result of their low population densities and distance from urban centres. Investment in better basic services is linked to sustainable land management in numerous ways. Healthier farmers, for example, are better able to implement soil conservation measures and sustainably managed land will improve food security and nutrition levels. Areas with relatively high literacy rates are likely to enjoy improved prospects for pro-poor growth.

74. Service provision can improve the resilience of rural communities to variability in natural environments. Providing a safe and reliable water supply, for instance, is a vital way of increasing the use efficiency of sporadic resources. This has been achieved simply in drought-prone north-eastern Brazil through the Programme of a Million Cisterns (see para. 33 above).

75. For mobile pastoralists, an element of mobility can be introduced for some service provision. Schemes combining human and animal services, a "One Health" approach, benefit further from shared transport logistics and equipment. The good

health of their animals is pivotal for pastoralists, given that livestock provide the main source of subsistence and the basis of economic wealth and social respect. Veterinary services can also control contagious diseases and infections that are transmittable between animals and humans, improving both human and livestock well-being. Healthier animals equate to better food security and higher incomes for pastoralists. Eliminating major human diseases also has synergistic effects in supporting progress in numerous other Millennium Development Goals.

4. Safety nets

76. Another condition for success can be met with targeted interventions via social assistance and public employment programmes. Targeting benefits to the poor is simple, cost-effective and can reduce poverty significantly. Government programmes providing income support and cash transfers to households that still lag behind, despite help from other policies, can work in any disadvantaged area, including poor and remote regions with few services. Pioneered in Latin America, the approach has been replicated in Africa and Asia. If cash transfer programmes are integrated with extension work on sustainable land management technologies, the poor can invest directly in their land to increase its productivity.

77. Government-backed guaranteed work schemes represent an additional form of targeted intervention. These public employment programmes can provide the labour to regenerate the rural sector through infrastructural improvements and enhanced agricultural productivity. Among their attractions, work programmes can be implemented fairly quickly or scaled up rapidly.

5. Integration of sustainable land management, climate adaptation and low-carbon development

78. Helping households dependent on natural resources to manage risk and reduce climate-driven shocks is a priority, a condition with particular resonance for the Convention. Indeed, sustainable land management has been recognized as a key investment area for strengthening resilience to the impacts of climate change under the Pilot Programme for Climate Resilience, paving the way for the integration of sustainable land management into core development planning and implementation.

79. Policies include incentives for climate-resilient land management practices, developing more climate-resilient varieties of crop and livestock, and reducing vulnerability by increasing incomes, improving access to markets, and the development of new markets and products. Governments can help further by underwriting livestock and agricultural insurance schemes established by the private sector.

80. Comparative advantage in some regions lies in new opportunities related to climate change, involving the fixing of carbon — or "sequestration" — and renewable energy (solar, wind and biomass), elements of a green economy that may have particular significance for rural areas with low population densities. Ecotourism may be another suitable alternative development pathway. Innovative funding models should be investigated. One example is the Costa Rican Forestry Act No. 7575, which allows payments to landowners who conserve forest. In this way, private landowners help to safeguard the nation's ecosystem services, including watershed protection, carbon sequestration, biodiversity conservation, and scenic landscape/tourism.

D. United Nations system-wide response to drylands

81. The General Assembly has already recognized the cross-sectoral nature of desertification, land degradation and drought, and in that regard has invited all relevant United Nations organizations to cooperate with the Convention secretariat in supporting an effective response to desertification and drought. A United Nations network on land issues in drylands is being established to propose options for a coherent United Nations system-wide contribution to land challenges, including implementation of the 10-year Strategy of the Convention. The Issue Management Group on land, created in September 2009 for a period of two years by the Environment Management Group, has drafted a United Nations system-wide rapid response report on drylands highlighting their importance to key global issues, including climate change, food security and human settlements. The report is not the end of the process so much as a milestone in a unique effort by the United Nations system to join hands in supporting the implementation of the 10-year strategic plan of the Convention by "delivering as one".

82. The premise of the report is that drylands in poor countries face disadvantage from the environmental challenges of aridity and variability and the socio-economic counterpart of chronic underinvestment, but that drylands do offer investment opportunities and these can be promoted by the United Nations system. It also emphasizes that the cost of inaction is too high for the international community to fail.

83. The draft report, provisionally entitled "Global drylands: a United Nations system-wide response", is under final review and will be available at the tenth session of the Conference of the Parties, to be held in Changwon, Republic of Korea, in October 2011. The Issue Management Group on land will develop follow-up recommendations for a joint agenda for action on drylands and possibly land in general, by building on the findings of the report. Broadening the scope of the mandate of the Convention to cover all land would not undermine the special case for a continued focus on drylands.

VI. Addressing desertification, land degradation and drought

Land degradation control and drought mitigation offer a win-win scenario for global sustainability

A. An avenue for global benefits

84. Reversing and preventing land degradation, alongside mitigation of the effects of drought, can bring multiple benefits globally. Projects to deal with these issues contribute to sustaining agricultural productivity and food security, enhancing living conditions and alleviating poverty. They automatically assist in maintaining ecosystem services and bring benefits to biodiversity conservation and climate change adaptation and mitigation. Addressing desertification, land degradation and drought is also essential to protect forests against deforestation. In short, addressing the issues of desertification, land degradation and drought mitigation equates to a win-win scenario for global sustainability.

85. Considerable progress has been made towards the objectives of the Convention since its inception. Desertification/land degradation is now recognized as both an environmental and a developmental problem, and one of global proportions. Hence,

an understanding has emerged that the tools and policies promoted by the Convention are relevant to sustainable land management worldwide. These changes have come about thanks to our fuller appreciation of the fundamental nature of human-environment systems: that they are intimately linked and totally global.

86. In the context of the 10-year Strategy of the Convention, indicator-based reporting and results-based management have been introduced. The Convention has entered the realms of measurability in terms of impact and performance indicators but still faces some institutional, financial and science-policy challenges associated with combating land degradation and mitigating the effects of drought.

B. Building blocks for addressing desertification, land degradation and drought issues

87. Sustainability is conditional on appropriate development, and making the most of opportunities associated with addressing desertification, land degradation and drought issues means developing and implementing, through a participatory process, a suitably integrated strategy to be implemented at the national level. This strategy should:

(a) Upgrade the knowledge base, improve knowledge-sharing, and close the gap between science and development practice to make the best use of technology and foster sustainable management at the national and global levels;

(b) Reassess the total economic value of land as natural capital, to correct systemic undervaluation in national planning and policy, and improve well-being. This should be conducted at the international and national levels;

(c) Promote sustainable public investments in natural resources, to reverse their relative neglect, provide better incentives for private investment — through adequate legislation and policies — and recognize small-scale environmental investments;

(d) Turn the growth of markets into an opportunity to remove barriers to participation, and to use more efficient, accessible and equitable markets as a pathway to sustainable development. Action needs to be taken at international and national levels;

(e) Support institutional changes at the national level to strengthen rights to natural resources, reform inequitable distribution, better manage risk, and increase resilience in the human-ecological system.

Recommendation

Consider ways and means to broaden the scope of the Convention, including the option for a non-legally binding international instrument for the sustainable management of all types of land.

C. Enhance the role of the private sector in implementation of the Convention

88. Private sector involvement in the implementation of the Convention provides opportunities for strengthening the provision of financial and technological resources and capacity-building for sustainable development.

Recommendation

International institutions should serve as co-funders and brokers for private sector participation in projects to implement the Convention, for example, by facilitating public-private partnerships and ensuring that projects contribute specifically to Convention objectives.

D. Rio+20: an opportunity to set the stage for sustainable land management

89. The upcoming United Nations Conference on Sustainable Development, to be held in Rio de Janeiro, will focus on green economies in the context of sustainable development and poverty eradication and the future institutional framework for sustainable development. Sustainable management of natural resources has already been recognized as being key for a green economy. The time is right to argue the case for efficient management of natural resources as a central element of a green economy, and the battle for poverty eradication to ensure sustainable development. All efforts should therefore be made to integrate and prioritize desertification, land degradation and drought issues on global, regional and national agendas for preparing for Rio+20 and to provide best practices on how land management can contribute to green economy.

Recommendations

- Integrate and prioritize desertification, land degradation and drought issues within green economies in the context of sustainable development and poverty eradication on global, regional and national agendas in preparation for Rio+20
- Provide best practices on how sustainable land management can contribute to a green economy in the context of sustainable development and poverty eradication.

E. Improve the framework for the fourth objective of the 10-year Strategy of the Convention: to mobilize resources to support the implementation of the Convention

90. The fourth objective of the Strategy is to mobilize resources to support the implementation of the Convention through building effective partnerships between national and international actors.

Recommendations

- Provide effective partnerships between national and international actors
- Enhance the Convention's means of implementation through investment/financing and access to relevant technologies
- Systematically integrate investments in sustainable land management into funds for agriculture, food security and adaptation to climate change
- Develop appropriate financial instruments beyond new and emerging forest-related initiatives and the clean development mechanism for promoting climate change mitigation through sustainable land management.

F. Strengthen the scientific base of the Convention and foster the establishment of a global authority on desertification, land degradation and drought

91. In the context of the 10-year Strategy, under operational objective 3 and the expected outcome related to science, technology and knowledge, the parties agreed that the Convention process shall become a global authority on scientific and technical knowledge pertaining to desertification/land degradation and mitigation of the effects of drought.

Recommendations

- Strengthen the scientific base of the Convention and foster the establishment of a global authority for scientific and technical knowledge pertaining to desertification, land degradation and drought issues and the improvement of networking of scientific organizations at all levels (national, subregional and regional) mobilized on desertification/land degradation and drought, on the basis of a thorough analysis of the gaps/needs in scientific matters related to these issues
- Argue the case for more investment in sustainable land management through the "Economics of desertification, land degradation and drought initiative" at the science-policy interface.

G. Make use of the United Nations Decade for Deserts and the Fight against Desertification to argue the case for desertification, land degradation and drought

92. The General Assembly has proclaimed 2010-2020 as the United Nations Decade for Desserts and the Fight against Desertification.

Recommendation

Elaborate strategies at national level and within the United Nations system to advocate for desertification, land degradation and drought.

H. Provide for an integrated United Nations-wide response to desertification, land degradation and drought issues

93. There is a need for integrated thinking and action, to maximize scarce resources and the benefits they can generate. Cooperation is needed between the Rio Convention secretariats and relevant United Nations system organizations, as well as between development organizations and the rising number of funds and bilateral and multilateral funding opportunities available to address desertification, land degradation and drought issues.

Recommendation

Encourage the United Nations system to coordinate and cooperate under the aegis of the Convention, on desertification, land degradation and drought issues.

VII. High-level meeting of the General Assembly

94. With these calls for action in mind, the following questions are suggested for consideration at the two interactive panels that will constitute the one-day high-level meeting of the General Assembly on the theme "Addressing desertification, land degradation and drought in the context of sustainable development and poverty eradication", between the opening and closing plenary meetings.

Possible questions for discussion in the panels

95. Few affected countries have set up clear policies and partnerships, including the allocation of special budget lines or investment strategies, to combat desertification, land degradation and drought. In addition, there is institutional confusion regarding the administrative settings and localization of the focal points of the Rio Conventions at the national level. The necessary capacity to measure desertification, land degradation and drought and progress resulting from implementation of the Convention to Combat Desertification may also be an issue.

Question for discussion

What are effective approaches for affected countries to fully mainstream sustainable land management within the relevant national policy areas, taking into account human, institutional and financial requirements?

96. Sustainable management of land is fundamental to sustainable development. Numerous best practices exist, but large-scale implementation is rather a matter of exceptions. Incentives are needed to manage land sustainably, such as technology transfer, ecosystem service payments, security of tenure and many others. Integration into decentralized planning and decision-making processes and legal frameworks that need to be made conducive for investing in sustainable land management are required (or needed). The relevance of each will vary with circumstances, and the pathways to disseminating appropriate practices are various, including markets, Governments, the United Nations, civil society organizations, and groups of land users themselves.

Questions for discussion

What are the best ways to encourage sustainable land-use methods and who should be in charge of such incentives? How can "the forgotten billion", the poorest and food insecure people living in drylands be enabled to engage in more sustainable land management? How to mobilize the business community and the market for investing in sustainable land and ecosystem management at all levels, including through pro-poor public-private partnerships?

97. Supporting and facilitating the implementation of sustainable land management needs to be integrated more effectively into policies for cooperation and development and alignment with affected countries' policies.

Question for discussion

What mechanisms are needed in the developed countries and international financial institutions to ensure better consideration of desertification, land degradation and drought and land potentials within policies for cooperation and development?

98. The United Nations Convention to Combat Desertification process has led to the adoption of the 10-year Strategy, and the ninth session of the Conference of the

Parties adopted impact and performance indicators, thus placing the implementation in the realms of measurability. While those indicators will keep refining, the situation is ripe for quantified target-setting.

Questions for discussion

How can Rio+20 foster the measurability of the implementation of the Convention by means of quantitative target setting for action at all levels? How the international community can act at global level to achieve zero net global land degradation as a global target for sustainable development through means of prevention, as well as land rehabilitation and reclamation?